

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: BALLARD POND	Lake Area (ha):	48.93
Town: DERRY	Maximum depth (m):	1.5
County: Rockingham	Mean depth (m):	0.5
River Basin: Merrimack	Volume (m ³):	248000
Latitude: 42°53' N	Relative depth:	0.2
Longitude: 71°15' W	Shore configuration:	1.81
Elevation (ft): 253	Areal water load (m/yr):	11.49
Shore length (m): 4500	Flushing rate (yr ⁻¹):	22.70
Watershed area (ha): 1171.8	P retention coeff.:	0.53
% watershed ponded: < 0.10	Lake type:	natural w/dam

BIOLOGICAL:

20 July 1987

DOM. PHYTOPLANKTON (% TOTAL) #1		
#2		
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		
CHLOROPHYLL-A (µg/L)		5.51
DOM. ZOOPLANKTON (% TOTAL) #1		
#2		
#3		
ROTIFERS/LITER		
MICROCRUSTACEA/LITER		
ZOOPLANKTON ABUNDANCE (#/L)		
VASCULAR PLANT ABUNDANCE		Very abundant
SECCHI DISK TRANSPARENCY (m)		
BOTTOM DISSOLVED OXYGEN (mg/L)		
BACTERIA (fecal col., #/100 ml) #1		30
#2		
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None

CHEMICAL:

Lake: BALLARD POND

Town: DERRY

		20 July 1987			
DEPTH (m)			1.5		
pH (units)			7.0		
A.N.C. (Alkalinity)			14.2		
NITRATE NITROGEN			< 0.05		
TOTAL KJELDAHL NITROGEN			0.59		
TOTAL PHOSPHORUS			0.028		
CONDUCTIVITY (μ mhos/cm)			134.2		
APPARENT COLOR (cpu)			53		
MAGNESIUM			1.38		
CALCIUM			8.0		
SODIUM			15.9		
POTASSIUM			0.90		
CHLORIDE			27		
SULFATE			4		
TN : TP			21		
CALCITE SATURATION INDEX			2.2		

All results in mg/L unless indicated otherwise

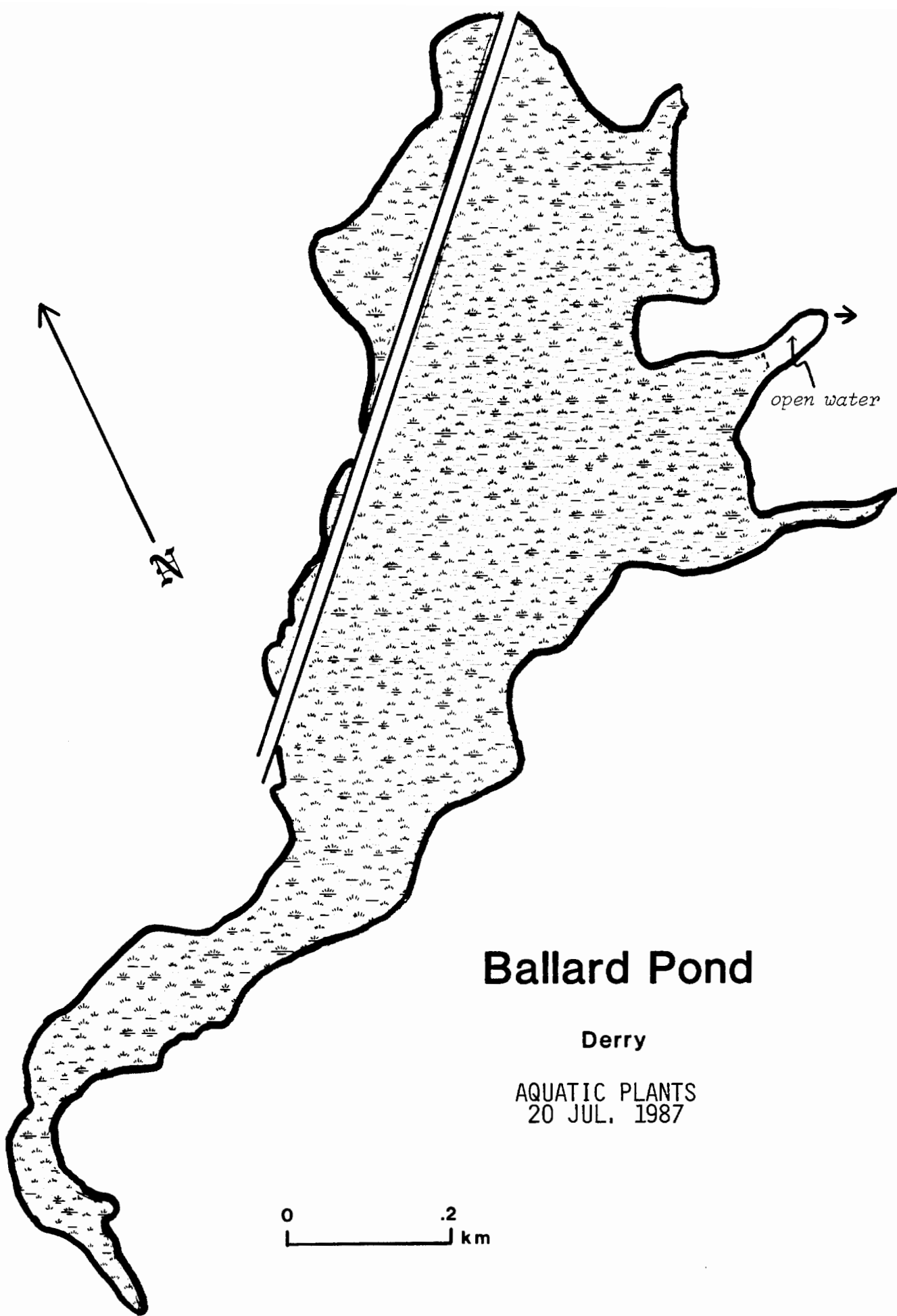
TROPHIC CLASSIFICATION: 1987

D.O. S.D. PLANT CHL TOTAL CLASS

**	**	**	**	**	N/C
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COMMENTS:

1. This is not a pond. It is a marsh with a very small area of open water near the dam. A water sample was collected near the dam. No plant survey, soundings, or profiles were conducted, and no plankton samples were collected. A trophic classification was not assigned.
2. No winter samples were collected.



Ballard Pond

Derry

AQUATIC PLANTS
20 JUL. 1987

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